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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,164	01/30/2004	James H. Kralick	89190.109203/DP-308949	7762
	7590 02/27/2007		EXAM	INER
Jimmy L. Funke, Esq. Delphi Technologies, Inc.			FITZGERALD, JOHN P	
Mail Code 4804 10202 P.O. Box 5052			ART UNIT	PAPER NUMBER
Troy, MI 48007			2856	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)		
	10/769,164	KRALICK ET AL.		
Office Action Summary	Examiner	Art Unit		
	John Fitzgerald	2856		
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the	correspondence address		
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be will apply and will expire SIX (6) MONTHS from the application to become ABANDON	DN. timely filed om the mailing date of this communication. NED (35 U.S.C. § 133).		
Status				
Responsive to communication(s) filed on 2a) ☐ This action is FINAL . 2b) ☑ This 3) ☐ Since this application is in condition for allowar closed in accordance with the practice under E	action is non-final. nce except for formal matters, p			
Disposition of Claims				
 4) Claim(s) 1-12 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) Claim(s) is/are allowed. 6) Claim(s) 1-5 and 9-12 is/are rejected. 7) Claim(s) 6-8 is/are objected to. 8) Claim(s) are subject to restriction and/or 	vn from consideration.			
Application Papers				
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the or Replacement drawing sheet(s) including the correction of the order	epted or b) objected to by the drawing(s) be held in abeyance. S ion is required if the drawing(s) is c	ee 37 CFR 1.85(a). bjected to. See 37 CFR 1.121(d).		
Priority under 35 U.S.C. § 119				
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Applica ity documents have been recei ı (PCT Rule 17.2(a)).	ation No ved in this National Stage		
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)	4) Interview Summa Paper No(s)/Mail I 5) Notice of Informal	Date		
Paper No(s)/Mail Date 6) Other:				

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DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-4, 9 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haltiner, Jr. et al. Haltiner, Jr. et al. disclose a system for monitoring the performance of a fuel stack for a fuel cell (see Fig. 1 below) having all of the recited elements including a fuel stack (24), a hydrocarbon reformer (22) for supplying gaseous fuel in the form of continuous reformate to the stack; a quantitative hydrocarbon sensor (5) (being any sensor (i.e. catalytic, optical, solid oxide electrode, etc.) to measure hydrogen, methane, carbon monoxide, carbon dioxide, water etc. Haltiner, Jr. et al. col. 5, lines 40-55) (as recited in claims 3 and 4) for measuring hydrocarbon content (as recited in claims 1 and 12) wherein the means for providing a sample of reformate output are an equivalent to the means disclosed in the instant specification.

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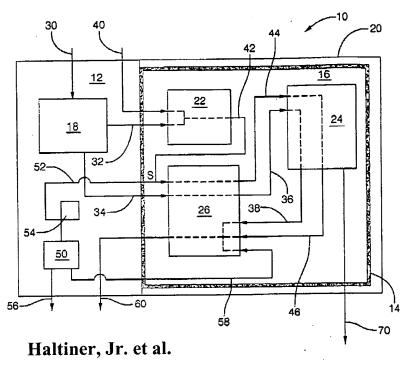


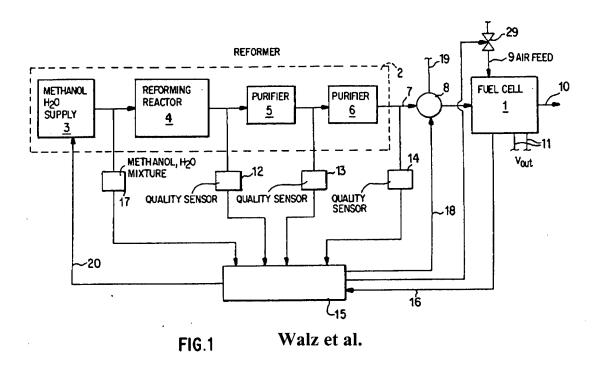
FIG. 1

3. Claims 5 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haltiner, Jr. et al. as applied to claim 1 above, and further in view of Walz et al. Haltiner, Jr. et al. disclose a fuel cell and system for monitoring the performance of a hydrocarbon reformer having all of the elements stated previously. However, Haltiner, Jr. et al. do not expressly disclose means for providing air to the sensor nor means for shutting down the fuel cell. Walz et al. disclose a method of monitoring the preformance of a fuel stack having most of the recited elements of independent claims 1 and 12 (see Fig. 1 below) having sensors (12, 13, 14) for monitoring the quality of the reformate leaving the reformer (4) before entering the fuel stack/cell (1) wherein air/oxygen is fed on a cathode side of one of the sensors (Walz et al.: col. 3, lines 1-7); and wherein a controller can interupt the system if the reformate quality is below a standard or switched off/shut-down completely (Walz et al.: col. 2, lines 20-25) (as recited in claim 10). It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to feed air/oxygen to a sensor monitoring the reformate for the purposes of having the sensor simultaneously monitoring the air supply or oxygen supply to the fuel cell arrangement (Walz et al.: col. 3, lines 5-7), as well as shutting down the system of delivering reformate to the fuel cell/stack to prevent damage.



Allowable Subject Matter

4. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

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5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is invited to review PTO form 892 accompanying this Office Action listing Prior Art relevant to the instant invention cited by the Examiner.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JF

02/20/2007

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